July 7, 2009

VIA E-MAIL (Kaplan.Katharine@epamail.epa.gov)
Ms. Katharine Kaplan
Program Manager, ENERGY STAR Program Development
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (6202J)
Washington, DC 20450

Re: Comments on ENERGY STAR TVs Draft 2 Versions 4.0 / 5.0

Dear Ms. Kaplan:

Panasonic Corporation of North America ("Panasonic"), a leader in the manufacture and sale of flat panel television technologies, appreciates the opportunity to comment on the eligibility criteria within EPA's Draft 2 of the ENERGY STAR TVs Versions 4.0 and 5.0. As a long-time partner and supporter of ENERGY STAR, we fully appreciate the Agency's challenge in crafting a robust specification and welcome the opportunity to provide additional constructive suggestions on improvements to the current draft proposal.

Our comments on Draft 2 of Versions 4.0 and 5.0 will focus on two key issues: 1) On-mode power; and 2) Measurements of luminance. We also will briefly comment on the proposal for Display Power Management Signaling.

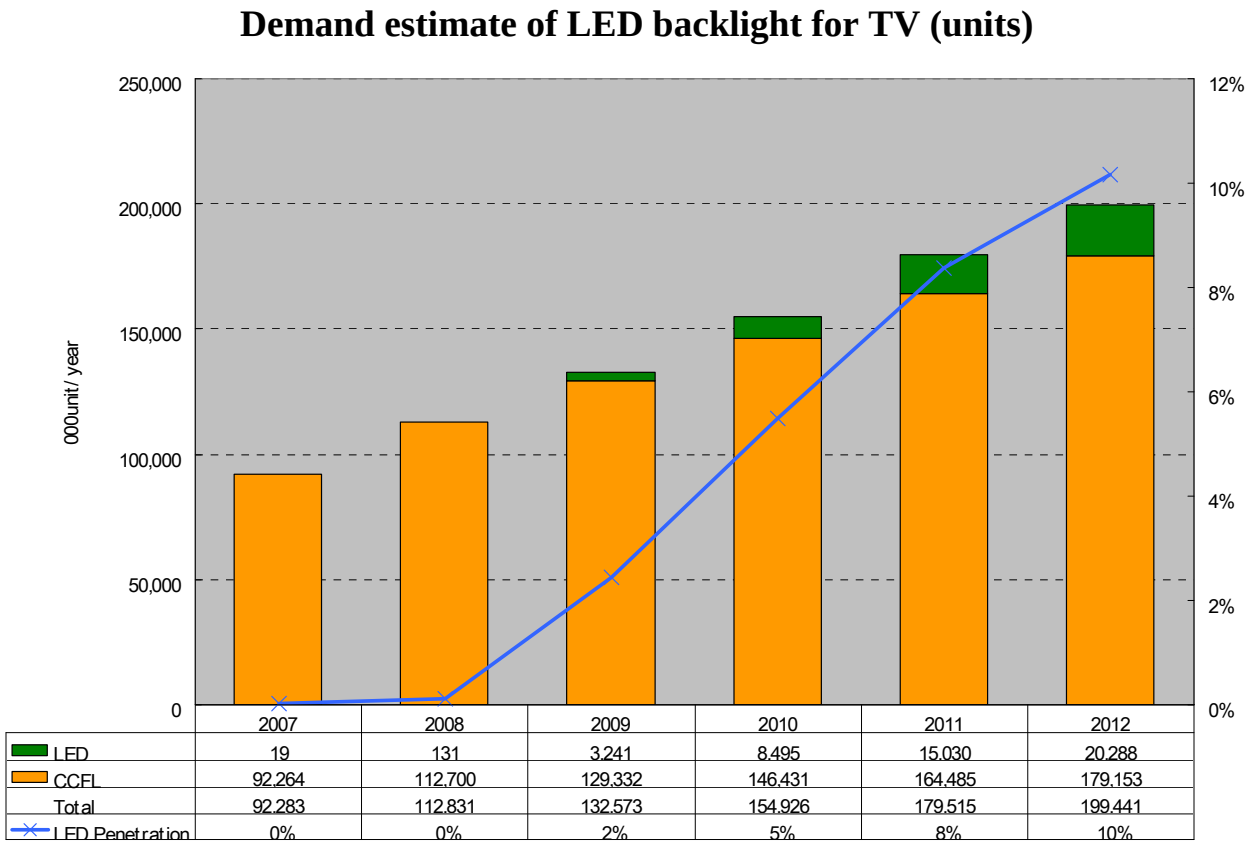
On Mode Power Consumption (Version 4.0):

As we have maintained throughout the specification development process, Panasonic urges EPA to establish vigorous yet realistic limits for TV on mode power consumption in Version 4.0, and defer proposing power limits in Version 5.0 until a later date. In our view, the final specification should be equitable across all size displays and technologies, and should be based upon available data and supportable projections of market penetration by highly efficient model designs. Unfortunately, the Draft 2 proposal fails to meet either critical requirement; thus we cannot support the current EPA proposal. (P_{Max} = 0.120*A + 25.0 formula).

Unchanged from the previous draft, EPA's proposed formula for Version 4.0 would impose disproportionately more rigorous qualifying criteria on select display sizes, targeting the mid and large displays for the greatest percentage in power reduction. As we previously commented, it is in no stakeholder's interest -- including EPA's--to have an ENERGY STAR TVs specification that only a few display sizes or technologies can meet.

The EPA formula, when applied to ENERGY STAR's latest available data set of 637 models, qualifies about 24.3 percent of models in the data base. However, the qualifying models are overwhelmingly and disproportionately smaller size models or large models of one technology type--rear projection DLP TVs, which industry analysts' forecast will disappear from the marketplace by 2011.

Although EPA claims to have evidence of the future availability of "many more mid and large-sized energy efficient models, utilizing different backlight technologies," many individual manufacturers have dismissed the indicators as byproducts of overly aggressive marketing promotion. Further, EPA suggests marketplace scenarios that do not appear to be supported by independent industry analysts' projections.



	2007	2008	2009	2010	2011	2012
LED	19	131	3,241	8,495	15,030	20,288
CCFL	92,264	112,700	129,332	146,431	164,485	179,153
Total	92,283	112,831	132,573	154,926	179,515	199,441
LED Penetration	0%	0%	2%	5%	8%	10%

Source: DisplaySearch (May 12, 2009, presentation)

For example, EPA claims several major manufacturers have targeted 40-100% LED backlight TVs in 2010 but these assertions are at odds with DisplaySearch data that project LED backlight TVs to comprise just 5% of the overall market in 2010 and rising to 10% by 2012. As LED backlighting is widely viewed as an LCD TV design change that achieves significant energy savings, any miscalculation in its market penetration (restricted by high price and lack of white LED lamp availability) will have a great impact on the percentages of TVs that can meet the Version 4.0 spec. It is likely that cost premiums and backlight availability will continue to impede rapid market penetration by LED TVs in 2010.

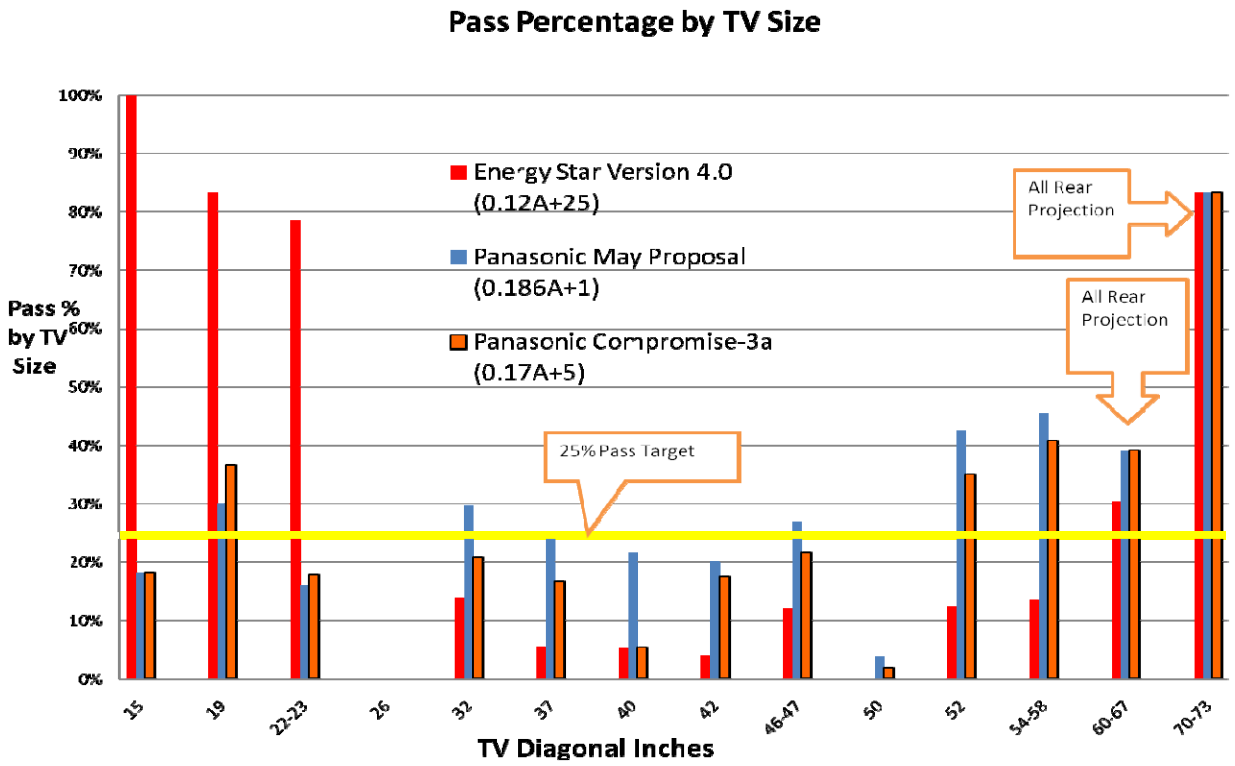
Likewise, the future promise of highly efficient Organic Light Emitting Display TVs will not likely have any meaningful market impact over the effective dates of Versions 4.0 and 5.0. DisplaySearch projects that OLED TVs will only reach 1% market penetration by 2012 thus their contribution toward ENERGY STAR qualifying models will be minimal.

Removing LED backlight LCD TVs, rear projection DLP TVs, and OLED TVs from the market calculations would drastically limit the availability of ENERGY STAR Version 4.0 qualifying mid and large size models. In contrast, EPA's Version 4.0 proposal would qualify nearly 83% of TVs 23 inches or smaller but fewer than 10% of TVs above 23 inches even factoring in some LED backlit TVs. EPA, in its June 5, 2009 written comments, said the "generous qualification rate in smaller screen sizes (was) an acceptable outcome" of the proposed spec. Clearly, this disparity would eliminate any meaningful product differentiation among ENERGY STAR-labeled small TVs and would diminish the relevance of the logo among consumers.

To remedy this prominent imbalance among qualification rates by size, Panasonic is proposing a new on mode power formula of P_{max}=0.17A+5 that would more evenly balance qualification rates among all size TVs. Panasonic's compromise proposal (Compromise 3a) would help to ensure that all size displays and technologies continue to be represented in the ENERGY STAR TVs program.

Panasonic is keenly aware of EPA's concern that ENERGY STAR qualification rates for TVs not quickly exceed the program's stated target of 25%. To allow for incremental design improvements that will inevitably bump up qualification rates, Panasonic's proposal achieves a current data set qualification rate of 20.4% overall. This allowance for additional models to qualify should keep the overall qualification rate close to 25% yet permit mid to larger size displays a reasonable opportunity to qualify (though likely at nominal percentage rates).

The figure below depicts the qualification rates by size grouping for the ENERGY STAR Version 4.0 proposal compared with the earlier Panasonic proposal and our current Panasonic Compromise 3a proposal.

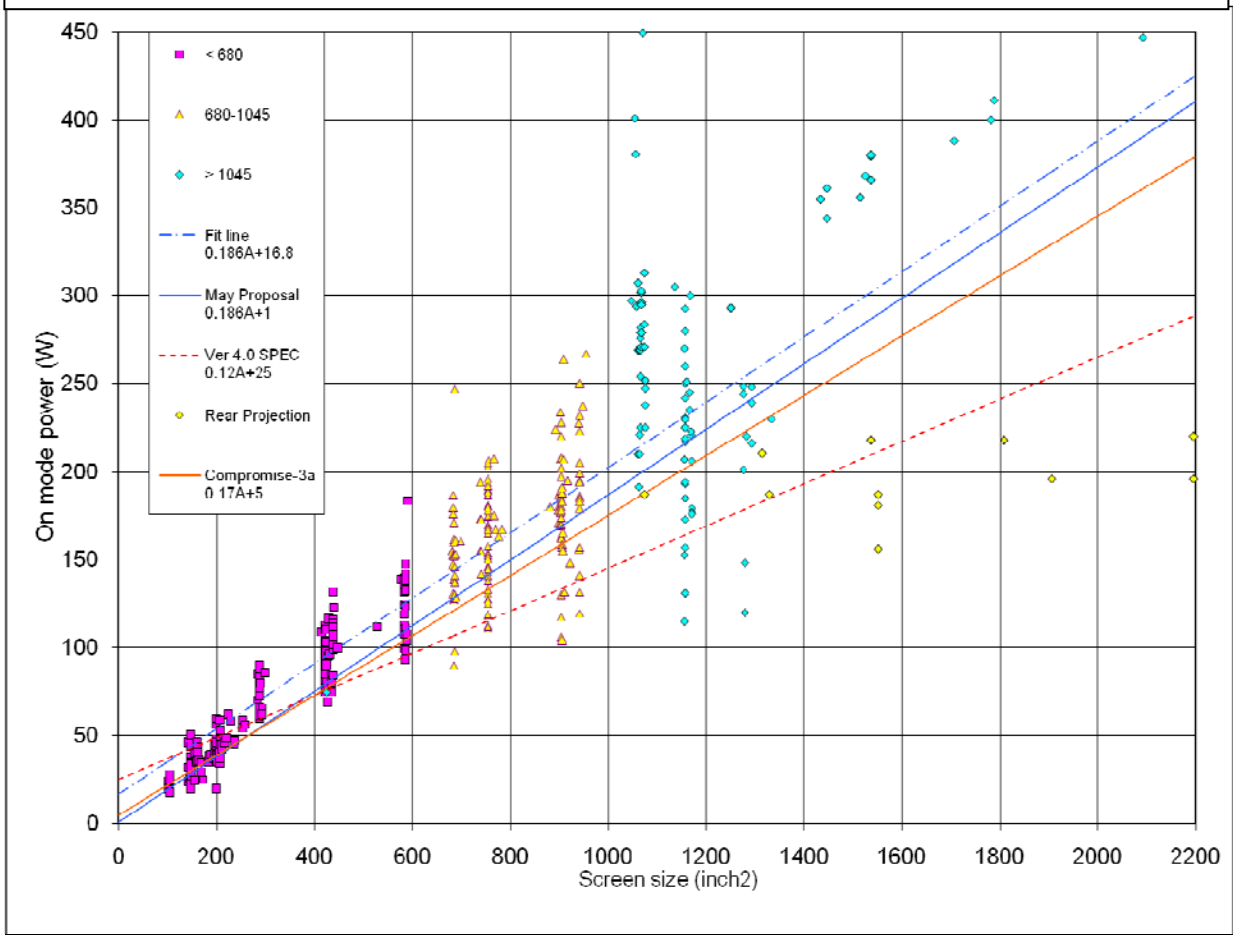


By aggregating the above data into less than or equal to 23 inches, and above 23 inch groupings, the percentages below clearly show a more equitable qualification rate between small and mid to large size displays.

Power Specification Line	All Sets Pass %	<= 23-inch Sets Pass %	> 23-inch Sets Pass %
Energy Star Version 4.0 (0.12A+25)	24.3	82.7	9.8
Panasonic May Proposal (0.186A+1)	24.2	22.8	24.5
Panasonic Compromise-3a (0.17A+5)	20.4	26.8	18.8

The next figure illustrates how models from the current EPA data set align with the proposed qualification lines. Panasonic's Compromise 3a (shown in orange line) strikes a careful balance between a challenging spec while still allowing some mid and large size (non-LED backlight TVs) to qualify. Compromise 3a also greatly averts the inequity of having nearly all small size TVs qualify for ENERGY STAR. The tightening of qualification rates under our new compromise proposal (about 20%) will hopefully assuage EPA's concerns over immediate high levels of product qualification.

Comparison of ENERGY STAR TV qualification levels



Although EPA apparently rejected our initial on mode power proposal from May 2009, the revised Compromise 3a maintains a balance across display sizes while providing EPA some reasonable assurance that qualification rates will not immediately outpace the effective date of the spec. Thus, our formula, which has the support of CEA, helps EPA achieve its program goals while also receiving support from industry.

On Mode Power Consumption (Version 5.0):

Despite a total absence of real market data and a disregard of prior recommendations from numerous TV manufacturers, EPA has proposed specific, extremely aggressive energy use limits for a Version 5.0 effective in

May 2012. Panasonic believes that EPA has compounded the Draft 2 spec's adverse impact on consumers and manufacturers through implementation of a 108-watt limit on power consumption. Thus, no television regardless of size, features, and functionality could consume above 108 watts and still qualify for ENERGY STAR. Under this policy misstep, the EPA has unilaterally and without manufacturer partner consultation, moved ENERGY STAR TVs from an energy efficiency program into a total energy consumption directive. This transformation would come with serious repercussions and downside to the ENERGY STAR brand.

One leading energy efficiency advocacy group, the Consortium for Energy Efficiency, has similarly questioned the wisdom of plugging in defined numbers at this premature date. Panasonic, along with virtually every other TV manufacturer, urges the EPA to make Version 5.0 a TBD level for now with an industry commitment to negotiate meaningful levels based on available data in 2010.

In its June 5 correspondence to stakeholders, EPA defended the setting of a formula for Version 5, claiming manufacturers were seeking a path forward to guide their efforts. EPA also contended "that there is a limit to what ENERGY STAR can credibly classify as an energy efficient TV." The Agency's judgment on what constitutes an energy efficient TV is provocative and represents a dramatic new policy direction that should have been vetted with all stakeholders prior to being proposed.

During a June 24th conference call with stakeholders, EPA commented that the ENERGY STAR program was a greenhouse gas mitigation program and claimed ensuring a balance across all display sizes was not a priority. EPA also expressed its concern that larger TV displays created greater greenhouse emissions, thus justifying tougher limits on the largest displays. The latter argument, however, fails to acknowledge that 50-inch and larger displays are not a significant percentage of the market and their market share is not forecast to grow over the next four years. Current data from DisplaySearch shows 50-inch and larger TVs represent just 14% of the market in 2009 and that figure is projected to remain essentially flat through 2013 (rising to 15%). Therefore, subjecting all TVs to a 108-watt cap would seem to attach the wrong end of the size range in order to reduce greenhouse gas emissions.

Panasonic appreciates that EPA has stated its commitment to reviewing Version 5.0 through an "open stakeholder process to determine the appropriateness of its requirements." We hope the Agency does indeed keep the process open but its actions to propose an absolute cap on TV power consumption suggest otherwise.

EPA also appears to draw erroneous conclusions about how soon technology improvements will be implemented into the marketplace and embraced by consumers. While EPA state that Version 5.0's approach "accommodates consumer choice across a wide spectrum of sizes," in reality there is significant doubt among nearly all TV manufacturers, in communication with Panasonic, about whether they will be able to produce any models that can meet the aggressive Version 5.0 limits. Because of this doubt, Panasonic and CEA strongly urge EPA to delay defining Version 5.0 levels until next year when additional data becomes available.

Measurement of Luminance:

In Draft 1 of the spec, EPA stated its "significant interest in ensuring that products are tested and qualified as ENERGY STAR in the mode in which they will ultimately be viewed in the home." This objective, however, was largely addressed by EPA in the current Version 3.0, which permits manufacturers to use a 'forced setup menu' prompt that strongly encourages consumers to select the less consumptive "Home" or standard brightness mode. Use of the forced menu at setup accommodated both EPA's desire to promote optimal energy savings by TVs used in the home and manufacturers' need to compete for sales based on picture brightness necessitated by typically very bright retail store environments.

Despite a lack of any empirical evidence supporting EPA's underlying "concern" that consumers are somehow forced to raise TV brightness settings in the home, EPA proposed in Draft 2 that luminance of a product in "home" mode or default mode as shipped be not less than 65% of the luminance of the "retail" or brightest selectable preset mode. As we are unaware of any products being returned at retail because of issues associated with picture brightness, this limiting proposal, frankly appears to be addressing a non-existent problem.

In its June 24th comments to stakeholders, EPA said the Draft 2 proposal "Gives manufacturers flexibility when setting luminance specifications for home and retail modes" and "Harmonizes with international partners." Additionally, EPA stated its intention to collect luminance levels in anticipation of adjusting luminance requirements prior to the effective date for Version 5.0.

As Panasonic has previously commented to EPA, there exists no practical reason to measure a TV in its most consumptive mode (retail or highest selectable setting) when consumers are admonished by the initial screen prompts to choose the less consumptive "home" or "standard" brightness level. It is illogical for EPA to impose any requirement involving a picture setting for which the overwhelming application will be confined to inside a retail environment.

By creating a direct linkage between home and the retail/highest selectable settings, EPA risks sacrificing substantial energy savings inasmuch as manufacturers would be forced to increase their home mode brightness settings in order to minimize the gap between the two settings. Compelling manufacturers to unnecessarily raise picture brightness in home mode in order to meet a luminance requirement utilizing a retail mode setting seems contrary to the ENERGY STAR program's direction.

It is possible to achieve significant energy savings in the "home" mode while simultaneously providing an enjoyable customer viewing experience in the home environment, as demonstrated by many 2009 TV models in the market. Therefore, it would be counter to the goal of saving energy if such a requirement were imposed to limit the potential for sizeable energy savings in the "home" mode.

During the most recent July 2nd ENERGY STAR stakeholders conference call, the Natural Resources Defense Council and California Energy Commission distributed a proposal to require the "retail" mode be only accessible to retailers with a password. Under the NRDC/CEC proposal, the brightest consumer selectable mode without a password would be constrained to less than 15% more power than the "home" mode. We agree with the comment from the nation's largest TV retailer that there would be many problems in implementing this approach uniformly and effectively across thousands of retail locations.

In addition, Panasonic agrees with other stakeholder comments that there must be much greater than a 15% differential between the brightest user selectable mode power and that of the "home" mode. Although the "home" mode is adequate for the majority of consumer environments, there needs to be a greater allowable range of settings to accommodate very bright ambient locations such as rooms with many windows allowing direct sunlight viewing conditions.

Linking the power of the "home" and brightest user selectable modes is not a meaningful approach if the concern prompting the linkage is "overly dim" home mode settings. Instead, if the EPA insists upon linking the "home" and "retail" modes, we urge EPA to follow the lead of the European and Australian governments. Both opted in favor of TV power regulations that do not effectively limit the "home" mode energy savings.

Despite a lack of solid evidence of a customer perceived luminance concern in the "home" mode, these regulations are preemptively proposing to require the "home" mode luminance to be not greater than 50 or 65 percent of the brightest selectable mode. The European and Australian approach to these regulations suggest a recognition that if the potential problem is a lack of luminance in "home" mode, then that is the characteristic, *i.e.*

luminance, that should be addressed with a minimum level, not power. This approach allows the manufacturer greater flexibility to supply TVs with sufficient brightness while still saving as much energy as is possible in the "home" mode for any given technology.

The ENERGY STAR Version 4.0 and 5.0 Draft 2 requested that stakeholders recommend the most appropriate patterns to be used for measuring luminance. We feel that the most appropriate pattern is the 3-bar white and black pattern, which is specified in the Australian approach to this issue. It is well defined and readily available since it is already supplied on the IEC 62087 DVD or Bluray discs which also contain the 10-minute test loop. As an alternative, we would recommend the European approach of using a full-white pattern which does not exceed the point where any power limiting occurs in the TV being measured. Panasonic would very much like to work with EPA and other stakeholders to finalize the test pattern and method.

In summary, if EPA should elect to address luminance in Version 4.0 or 5.0, we believe there is no credible reason to use power as the metric in order to address perceived or anticipated concerns. Therefore, picture brightness would be the proper approach to the luminance issue, and simple harmonization with the EU or Australian levels would be appropriate in order to safeguard against unnecessarily inflated home mode brightness levels. We understand that harmonization with other international approaches (EU and Australia) to potentially be EPA's default position should a consensus on a pattern and testing not be reached.

Display Power Management Signaling

Panasonic believes that DPMS is a power saving method more appropriate for personal computer monitors and not for consumer TVs. As TVs are very seldom used with PC inputs for long time periods, DPMS will not yield significant energy savings. However, a TV's standby power would need to be increased about 50% by incorporating DPMS since the TV would have to be always ready for the PC input line to "wake" the unit from its standby or sleep mode.

Newer TVs already have similar power saving functions that achieve comparable energy savings without use of DPMS. Panasonic TVs, for example, incorporate a "no signal power off" functionality in order to reduce unnecessary power consumption. Adding a DPMS function would be duplicative and would add costs to the unit. Consequently, we urge EPA to not require the addition of DPMS for consumer TVs.

Summary

Panasonic will continue to work constructively with you and your colleagues throughout the ENERGY STAR TVs Version 4.0 specification development process and for Version 5.0, which as previously explained, would be more appropriate for stakeholder negotiations beginning next year.

As a valued ENERGY STAR Partner since the program's inception, Panasonic greatly appreciates EPA's forward-looking efforts to enhance the ENERGY STAR label's value in the marketplace. Although we are troubled that the Draft 2 specification appears to move in the wrong direction for on mode power and unnecessarily targets a perceived luminance issue, we remain confident that subsequent revisions can produce an aggressive yet technologically and commercially feasible specification.

We ask EPA to consider our proposed revisions to the ENERGY STAR TVs Draft 2 specification (adopt an equitable on mode power formula as embodied in our compromise 3a approach), which are intended to produce a viable specification that challenges and incentivizes manufacturers to produce even more efficient products in the future. And, we would be pleased to discuss our suggestions in more detail at your convenience. Please know that we appreciate you and your colleagues' continuing consideration of our views.

Sincerely,

/s/

Peter M. Fannon
Vice President
Corporate and Government Affairs
Panasonic Corporation of North America

cc: B. Kundu
D. Thompson